

Sub A1

CLAIMS

1. A heat generator comprising:

a housing having an internal turbine chamber, an inlet opening and first conduit means for delivering a fluid to be heated into the turbine chamber, and an outlet opening and second conduit means for receiving heated fluid from the turbine chamber;

a drive shaft means mounted in the housing for rotation about an axis;

a stator mounted in the turbine chamber, the stator having an annular array of stator buckets opening in a common axial direction;

a rotor mounted in the turbine chamber, the rotor having an annular array of rotor buckets mounted on the shaft means for rotation therewith, the rotor buckets facing the stator buckets and being closely adjacent thereto, and conduit means for delivering a fluid into the rotor buckets and the stator buckets;

drive means for rotating the drive shaft means whereby the fluid passes back and forth between the rotor buckets and the stator buckets as the rotor buckets pass the stator buckets thereby heating the moving fluid; and

conduit means for passing the heated fluid to a heating zone.

2. A heat generator as defined in claim 1, including an annular array of centrifugal pumping vanes mounted on the rotor for pumping fluid into the housing and toward the stator buckets.

1
2
3
4
5
6

1. A heat generator as defined in claim 1, in which the stator buckets have openings for passing the fluid toward the rotor buckets, said openings being disposed in a common plane that is transverse to said axis of rotation, and the rotor buckets have openings for receiving fluid from the stator buckets, said rotor bucket openings being disposed in a common plane that is closely adjacent the plane of the stator bucket openings.

1
2
3

2. A heat generator as defined in claim 1, including vane means mounted in the stator buckets to define the path of the fluid as it is passing through the stator buckets.

1
2

3. A heat generator as defined in claim 1, in which the number of rotor buckets is greater than the number of stator buckets.

1
2

4. A heat generator as defined in claim 1, including inlet valve means for controlling the amount of fluid being delivered to the turbine chamber.

1
2
3

5. A heat generator as defined in claim 1, including outlet valve means for providing an obstruction to the amount of water being discharged from the turbine chamber.

- 6/8.
- 1 A heat generator as defined in claim 1, including a bypass opening
 - 2 connected to the second conduit means for controlling the amount of fluid being
 - 3 delivered to the turbine chamber from the inlet opening.

Add A3